

Remarks

In view of the above amendments and the following remarks, Applicants respectfully request reconsideration and withdrawal of the outstanding objections and rejections.

Claim Status

Upon entry of the foregoing amendments, claims 9-17, 19-22, and 25-26 are currently pending with claims 9, 13, 19 and 21 being the independent claims. Claims 1-8, 18, 23 and 24 are cancelled. Claims 9-17 and 19-22 are amended. Claims 25-26 are newly added.

Support for the claim amendments and additions may be found in the original claims and throughout the specification. With particular reference to the language “dNTPs in excess of one or more degradation components,” support can be found, e.g., at pages 15, 37 and 49. Thus, no new matter is added by way of the amendments, and their entry is respectfully requested.

In view of the above amendments and the following remarks, Applicants respectfully request reconsideration and withdrawal of the outstanding objections and rejections.

Objections to the Specification

In response to the objection at page 2 of the Office Action regarding sequences, the specification is sought to be amended to enter SEQ ID NO: 1 at the appropriate location in the specification, and to provide updated sequence identifiers in the specification. In accordance with 37 C.F.R. §§ 1.821-1.825, the Sequence Listing sought to be entered by the foregoing amendment contains no new matter, and the paper and computer-readable copies of the sequence listing attached hereto are the same.

The Office Action also indicated that certain trademarks were improperly identified. See Office Action at page 2. Applicants note that in the application as filed, the referenced trademarks are properly identified in the form used by the trademark holders, and that generic terms (e.g., “inhibitor,” “vector,” “reverse transcriptase”) are used in connection with the trademarks.

In view of the foregoing amendments and remarks, Applicants respectfully request that the objections to the specification be withdrawn.

Claim Objections

Claims 18 and 24 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Claims 18 and 24 have been cancelled, thus rendering the objection moot.

Claims 14-18 are objected to because claim 14 depends from itself and as such is improper and claims 15-18 each ultimately depend from claim 14. Claims 14-17 have been amended to depend from claim 13 and claim 18 has been cancelled, thus rendering the objection moot.

Claim 20 depends from itself and as such is improper. Claim 20 has been amended to depend from claim 19, thus rendering the objection moot.

Claims 23 and 24 both misspell micromolar as "micomolar." Claims 23 and 24 have been cancelled, thus rendering the objection moot.

In view of the foregoing amendments and remarks, Applicants respectfully request that the objections to the claims be withdrawn.

Claim Rejections Under 35 U.S.C. § 112, second paragraph

Claims 10-13, 18-20, and 22 are rejected under 35 U.S.C. § 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter for which applicant regards as the invention.

Claims 10-12 were rejected as lacking sufficient antecedent basis. Claim 10 has been amended to depend from claim 9 instead of claim 8. Claims 11-12 have been amended to depend from claim 10 instead of claim 8. Thus, amended claims 10-12 have sufficient antecedent basis.

Claim 13 has been amended to recite a method of reverse transcription involving "RNA templates" and "DNA molecules," rather than a "nucleic acid templates" and a

complementary “nucleic acid” product. Applicant’s believe this amendment addresses the Examiner’s concern.

Claim 18 has been cancelled, thus rendering the objection moot.

Claim 19 has been amended to recite “RNA templates” instead of a “nucleic acid templates.” Applicant’s believe this amendment addresses the Examiner’s concern.

Claim 20 has been amended to depend from claim 19, thereby rendering the indefiniteness objection moot.

Claim 22 has been amended to no longer recite “terminating agents,” thereby rendering the indefiniteness objection moot.

In view of the foregoing amendments and remarks, Applicants respectfully request that the rejections of the claims under 35 U.S.C. § 112, second paragraph be withdrawn.

Claim Rejections Under 35 U.S.C. § 112, first paragraph

Claims 1-5, 9, and 13-24 are rejected under 35 U.S.C. § 112, first paragraph as not enabling any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims. However, the Examiner has indicated that the specification is “enabling for inhibitors consisting of nucleotides ... compositions comprising these nucleotides ... methods of using these nucleotides ... the products made by these methods and kits comprising these nucleotides.” See office action at paragraph number 20. Claims 1-8, 18, 23 and 24 have been cancelled. Claims 9, 13-17 and 19-22 recite “dNTPs” rather than “inhibitors.” Applicants therefore respectfully request that the rejection of claims 9, 13-17 and 19-22 under 35 U.S.C. § 112, first paragraph be withdrawn.

Claim Rejections Under 35 U.S.C. § 102(b)

Claims 1-24 have been rejected under 35 U.S.C. §102(b) as being anticipated by Schwabe et al. (FOCUS 20: 30-33 (1998)). To expedite examination, claims 1-8, 18, 23 and 24 have been cancelled. Applicants respectfully traverse the rejection of claims 9-17 and 19-22 as being anticipated by Schwabe. Claims 9-17 and 19-22 recite “dNTPs in excess of one or more degradation components.” Schwabe does not appear to disclose dNTPs in

excess of a degradation component. For example, Schwabe teaches a reverse transcription reaction including an excess (10mM) of MgCl_2 over the total concentration of total dNTPs (2mM). In this example, the dNTPs clearly are not in excess of the potential inhibitor MgCl_2 . Applicants therefore respectfully request that the rejection of claims 9-17 and 19-22 under 35 U.S.C. §102(b) be withdrawn.

Claims 1-10, 12-15, 17, 18, and 22-24 also are rejected under 35 U.S.C. §102(b) as being anticipated by Krug (Methods Enzymol 152: 316-325 (1987)). Claims 1-8, 18, 23 and 24 have been cancelled. Applicants respectfully traverse this rejection with respect to claims 9-10, 12-15, 17, and 22. These claims recite "dNTPs in excess of one or more degradation components." Krug does not appear to disclose dNTPs in excess of a degradation component. For example, Krug teaches a method for first strand cDNA synthesis using a reaction mixture with 4 mM dNTPs and either 30mM or 100 mM MgCl_2 depending on the type of reverse transcription enzyme used (M-MLV or AMV, respectively). Applicants therefore respectfully request that this rejection of claims 9-10, 12-15, 17, and 22 under 35 U.S.C. §102(b) be withdrawn.

Claims 1-24 also are rejected under 35 U.S.C. §102(b) as being anticipated by Gerard (Mol Biotechnol 8: 61-77 (1997)). Claims 1-8, 18, 23 and 24 have been cancelled. Applicants respectfully traverse this rejection with respect to claims 9-17 and 19- 22. These claims recite "dNTPs in excess of one or more degradation components." Gerard does not appear to teach the use of dNTPs in excess of a degradation component in reverse transcription reactions. For example, Gerard discloses reverse transcription reactions in which MgCl_2 is in excess of the total concentration of dNTPs by at least 1.5 fold difference (see Table 3, page 67). Applicants therefore respectfully request that this rejection of claims 9-17 and 19- 22 under 35 U.S.C. §102(b) be withdrawn.

Claims 1-8, 21, and 22 are rejected under 35 U.S.C. §102(b) based upon a public use or sale of the invention as evidence by Gibco (Gibco BRL 1997/1998 Products and Reference Guide). Claims 1-8 have been cancelled. Applicants traverse this rejection with respect to claims 21 and 22. The claimed kits include a reverse transcriptase and dNTPs in excess of one or more degradation components. The Gibco reference does not disclose kits that include a reverse transcriptase and dNTPs in excess of one or more degradation

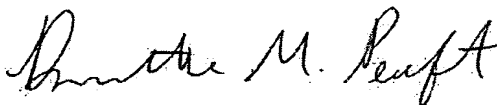
components. Applications therefore respectfully request that the rejection of claims 21 and 22 under 35 U.S.C. §102(b) be withdrawn.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding objections and rejections. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Bernadette M. Perfect".

Bernadette M. Perfect

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